



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10**

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REGIONAL
ADMINISTRATOR'S
DIVISION

July 18, 2022

Craig Horrell, District Manager,
Central Oregon Irrigation District,
1055 SW Lake CT,
Redmond, OR 97756

Dear Craig Horrell:

The U.S. Environmental Protection Agency has reviewed Natural Resource Conservation Service's June 2022 Notice of Intent to prepare an Environmental Impact Statement for the Central Oregon Irrigation District Pilot Butte Canal Infrastructure Improvement Project (Docket Number NRCS-2022-0004; EPA Project Number 22-0034-NRCS). EPA has conducted its review pursuant to the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act (CAA). The CAA Section 309 role is unique to EPA. It requires EPA to review and comment publicly on any proposed federal action subject to NEPA's environmental impact statement requirement.

The NOI states that the NEPA analysis will evaluate the potential impacts associated with converting an open channel canal system to a piped system. The stated purpose of the project is for the conservation of irrigation water, improvement of water delivery reliability to, and reduction in long-term operation and maintenance costs on approximately 21 miles of canal owned by the Central Oregon Irrigation District in between Bend and Redmond, Oregon. The NOI identifies 3 different alignment alternatives to route the irrigation piping and a no action alternative that will be evaluated.

EPA supports the proposed project's efforts to reduce the amount of water lost due to inefficient systems. Given the anticipated impacts of climate change on water availability, freshwater resources are a pressing issue in the Northwest. Enclosed are EPA's comments and recommendations when preparing the Draft Environmental Impact Statement. This includes evaluating and integrating climate change impacts into the environmental review, as well as climate resiliency to ensure long-term project success. Additionally, EPA is providing recommendations to evaluate potential air quality impacts related to construction activities, impacts the project may have to flora and fauna in the area, cumulative impacts analysis and assessing for environmental justice issues. The enclosed Detailed Comments provide greater detail.

Thank you for the opportunity to review the NOI for this project. If you have any questions about this review, please contact Scott Schlieff of my staff at (206) 553-4032 or Schlieff.Scott@epa.gov, or contact me at (206) 553-1774 or at Chu.Rebecca@epa.gov.

Sincerely,

Rebecca Chu, Chief
Policy and Environmental Review Branch

Enclosure

**U.S. EPA Detailed Comments on the
COID Pilot Butte Canal Project
Deschutes County, Oregon
July 2022**

Water Resource Impacts

To fully characterize the impacts to water quality that may result from this project, EPA recommends the NEPA analysis describe the current conditions of the area (i.e. of acreage of wetlands, ditched and natural streams, Clean Water Act Section 303(d) listed waters, Total Maximum Daily Load plans, etc.).

EPA recommends the NEPA analysis characterize the direct, indirect, and cumulative impacts that each of the proposed alternatives will have on the current conditions and how each of the alternatives account for and mitigate impacts. For instance, include any anticipated effects such as dewatering wetlands, long term impacts to the aquifer and aquifer recharge, any impacts expected to local ground water tables, impacts to well users in the area, and what impacts the water saved from seepage and evaporation will have on the other surface water systems. EPA recommends that the NEPA analysis also clearly explain how the project fits into broader goals and efforts related to watershed management and water conservation in the area.

Construction activities of the proposed project may be subject to regulatory requirements and require permitting, such as Clean Water Act Sections 401, 402, and 404 permits.

Clean Water Act Section 401

The CWA provides states and authorized tribes the authority to grant, deny, or waive certification of proposed federal licenses or permits that may discharge into waters of the U.S. This section of the CWA is an important tool for states and authorized tribes to help protect the water quality of federally regulated waters within their borders, in collaboration with federal agencies. In developing the NEPA analysis, EPA recommends early coordination with the State of Oregon, tribes that have treatment in a similar manner as a state and CWA 401 authority for the purposes of streamlining regulatory processes.

Clean Water Act Section 402

EPA recommends the NEPA analysis identify any discharges to waters of the U.S. that are known, or are likely, to occur during construction and operation of the project and how these discharges would be managed and minimized. Identify the NPDES permits that will be obtained for the construction phase, new (or modifications to) existing permits for operations, and how any previous permit exceedances could be prevented by incorporating pollution prevention measures into the project. Describe any site-specific BMPs or stormwater pollution prevention plans that will be used during construction to minimize those impacts. Examples of BMP measures to include are: physical measures like silt fencing; timing and sequencing restrictions; setback provisions from existing streams, riparian areas, or wetlands; equipment decontamination; and/or invasive species management.

Clean Water Act Section 404

The proposed project may require a permit under Section 404 of the CWA from the U.S. Army Corps of Engineers for the discharge of dredged or fill material into waters of the U.S. Wetlands, vegetated shallows, mud flats and cobble substrates are all considered special aquatic sites under the CWA Section 404(b)(1) Guidelines (40 CFR 230).

EPA recommends that the NEPA analysis:

- Clearly identify any discharges to waters of the U.S. that are known, or likely, to occur that will be subject to Section 404 of the CWA. Identify and describe the impact of those discharges, control measures to be employed to address those impacts, and best management practices to prevent discharge of water and pollutants.
- Includes sufficient information that can serve as a basis to determine whether the project would satisfy the requirements for the Section 404 permit or identify appropriate measures to mitigate the project's impacts to all waters of the U.S.
- Structure the alternatives analysis so that it is consistent with meeting requirements of both the CWA and NEPA.
- Describe the regulatory criteria and processes utilized to screen potential alternatives and thoroughly evaluate alternatives that would pose less adverse impacts.
- Describe how compensatory mitigation will be quantified and provided to offset impacts, with specific project examples and options as available.

Financial Assurance

As local, regional, and national conditions fluctuate due to climate change, EPA suggests requiring financial assurance mechanisms in licenses and other authorizations to cover the costs of safety measures and project operation and maintenance, including specific adaptive management plans to contend with changing climatic conditions. EPA also suggests establishing a trust to assist licensees with preventing or responding to accidental catastrophic failures. Careful consideration of local impacts will ensure financial assurances for new and existing projects are considered when creating measures to incorporate climate resiliency planning and response mechanisms for infrastructure.

Wildlife Impacts

EPA recommends conducting surveys in the project area as part of the impact analysis to identify invertebrate species, flora and other wildlife present in the project area. U.S. Department of Fish and Wildlife, the National Marine Fisheries Service, and the Oregon Department of Fish and Wildlife, conservation groups, and tribal governments may have existing information and resources to support this survey. EPA recommends the NEPA analysis evaluate and describe potential impacts to wildlife and flora, including species and their critical habitat identified under the Endangered Species Act or state listed species, in the NEPA analysis. Include in the NEPA analysis steps to address those potential impacts, such as timing construction activities to minimize the disruption to wildlife during sensitive lifecycle stages and selecting the alternative that minimizes the impacts to wildlife and their habitat.

EPA recommends the NEPA analysis identify if revegetation work, planting plans, and invasive species management will be required for this project. EPA also recommends describing the methods that will be used for managing for invasive species during and after the project.

Air Quality Impacts

The proposed project is long, linear and will require a significant amount of heavy equipment to accomplish the earthworks. EPA recommends that the NEPA analysis include a discussion of the ambient air conditions (baseline or existing), the National Ambient Air Quality Standards and nonattainment areas, and potential air quality impacts of the proposed project for each alternative. In estimating criteria pollutant emissions for the analysis area, discuss the timeframe for release of these emissions.

To minimize the environmental impacts of construction related work, EPA recommends the NEPA analysis identify actions to minimize the impacts to local air quality, especially any fugitive dust and diesel emissions. At a minimum, it is recommended to include discussion of the following information:

- Any adverse impact on air-quality-related values in a federal Class I area or state wilderness area.
- Annual emissions greater than the basic Prevention of Significant Deterioration emission thresholds that currently exist in the project area.
- Any violation of any state or federal ambient air quality standards that may result from this project.
- Interference with the maintenance or attainment of any state or federal ambient air quality standard in the analysis area that may result from this project.
- Increases in the frequency or severity of any existing violations of any state or federal ambient air quality standard in the analysis area.
- Exposure of nearby populations to increased levels of diesel particulate matter and other air toxics, especially during construction phases which might utilize heavy equipment.
- Delays in the timely attainment of any standard, interim emission reduction, or other air quality milestone promulgated by the EPA or state air quality agency; or exposure of sensitive receptors to substantial pollutant concentrations.
- Consider potential mitigation measures for construction equipment that may lessen the severity of the air impacts on the local environment.

Climate Change Impacts and Resiliency

EPA recommends the NEPA document consider ongoing and projected regional and local climate change and ensure robust climate resilience/adaptation planning in the project design. Ongoing and projected regional and local climate impacts include, but are not limited to increased temperatures, changes in timing and amount of stream flows, changes to water availability, and impacts to agriculture.¹ Consideration of these impacts could help avoid infrastructure investments in vulnerable locations, and unintended impacts on local communities. Also consider relevant state, tribal or local adaptation plan.

EPA also recommends the NEPA analysis include measures to ensure resilience/adaptation to protect infrastructure investments from the effects of climate change (on the project). The long-lived nature of infrastructure makes consideration of the ongoing and projected impacts of climate change even more important. It is not sufficient to ensure resilience of the project to risks under current climate conditions only. Considering potential climate change impacts help ensure the investments made today continue to function and provide benefits, even as climate conditions change.

In characterizing the affected environment and environmental consequences of the proposed infrastructure modernization project, EPA recommends that NEPA analysis include:

- Identification of how climate resiliency has been considered in the various Alternatives.
- Assessment of the additive and synergistic impacts of climate change upon local natural resources, seasonal water patterns, and wildfires.
- Assessment that relates climate change to environmental justice and human health impacts.
- Existing and reasonably foreseeable environmental trends related to a changing regional and local climate; and

¹ <https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-or.pdf>.

- Reasonably foreseeable effects that a currently changing climate will have on the proposed project and the project area, especially as it relates to surface and groundwater hydrology.

Cumulative Impacts

When analyzing the project, EPA recommends determining what the cumulative impacts of the proposed amendment will be on human health and the environment. Include an evaluation of the proposed project's impacts in the context of interacting with, and potentially exacerbating, the effects of other projects in proximity (e.g., the timing of the work coinciding with other human or natural disturbances that are affecting the project area). Considering all the actions in this area together would help decision makers to understand more clearly what the cumulative impacts on environmental resources are likely to be and identify ways to ensure the project is sustainable. EPA has issued guidance on how to provide comments on the assessment of cumulative impacts, *Consideration of Cumulative Impacts in EPA Review of NEPA Documents*.² The guidance states that to assess the adequacy of the cumulative impact assessment, there are five key areas to consider:

- Resources, if any, that are being cumulatively impacted.
- Appropriate geographic area and the time over which the effects have occurred and will occur.
- All past, present, and reasonably foreseeable future actions that have affected, are affecting, or would affect resources of concern.
- A benchmark or baseline.
- Scientifically defensible threshold levels.

Environmental Justice

Executive Order 12898 directs federal agencies to identify and address the disproportionately high and adverse human health effects of federal actions on minority and low-income populations, to the greatest extent practicable and permitted by law. Incorporate EO 13985 on *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government* into the analysis because it includes a modern definition of equity that clarifies a broader approach.

Assessing EPA's Environmental Justice Screening and Mapping Tool (EJScreen) information is a useful first step in understanding or highlighting locations that may be candidates for further review or outreach in determining where environmental justice (EJ) concerns may exist.³ EPA considers a project to be in an area of potential EJ concern when an EJScreen analysis for the impacted area shows one or more of the eleven EJ Indexes at or above the 80th percentile in the nation and/or state. At a minimum, EPA recommends an EJScreen analysis consider EJScreen information for the block group(s) which contains the proposed action, and a one-mile radius around those areas.

It is important to consider all impacted areas by the proposed actions. Areas of impact can be a single block group or span across several block groups and communities.⁴ When assessing large geographic areas, consider the individual block groups within the project area in addition to an area wide assessment. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these

² <https://www.epa.gov/sites/default/files/2014-08/documents/cumulative.pdf>.

³ <https://ejscreen.epa.gov/mapper/>.

⁴ Agencies should define community as "either a group of individuals living in geographic proximity to one another, or a geographically dispersed set of individuals (such as migrant workers or Native Americans), where either type of group experiences common conditions" (Interim Justice40 Guidance – Executive Order 14008 on Tackling the Climate Crisis at Home and Abroad, January 27, 2021).

indicators.⁵ As the screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location and/or proposed project, consider additional information in an EJ analysis to supplement EJScreen outputs.⁶

Further review or outreach may be necessary for the proposed action if it is found that there are communities with potential EJ concerns. To further analyze and screen for communities with EJ concerns affected by the proposed amendment, EPA recommends:

- Applying the "Environmental Justice Interagency Working Group Promising Practices for EJ Methodologies in NEPA Reviews" report, or the Promising Practices Report, to this project.⁷ The Promising Practices Report is a compilation of methodologies gleaned from current agency practices concerning the interface of EJ considerations through NEPA processes.
- Characterizing project site(s) with specific information or data related to EJ concerns.⁸
- Describing potential EJ concerns for all EJ Indexes at or above the 80th percentile in the state and/or nation.
- Describing block groups which contains the proposed action and at a minimum, a one-mile radius around those areas.
- Describing individual block groups within the project area in addition to an area wide assessment.
- Supplementing data with county level reports and local knowledge. This may include:
 - The Health Impact Assessment (HIA) Resource and Tool Compilation.⁹
 - Limited English Proficiency Mapping.¹⁰
 - Air Quality Data.¹¹
 - Center for Disease Control and Agency for Toxic Substances and Disease Registry's Social Vulnerability Index.¹²
 - Extreme Heat Vulnerability Mapping Tool.¹³
 - Global Probabilistic Extremes Forecast Tool.¹⁴
 - Resilience Analysis and Planning Tool.¹⁵
 - Smart Location Mapping.¹⁶

⁵ <https://www.epa.gov/ejscreen/technical-documentation-ejscreen>.

⁶ <https://www.epa.gov/healthresearch/health-impact-assessment-hia-resource-and-tool-compilation>; <https://www.lep.gov/maps/lma2015/Final>; <https://www.airnow.gov/>; <https://www.atsdr.cdc.gov/placeandhealth/svi/index.html>; <https://nihhis.cpo.noaa.gov/vulnerability-mapping>; <https://www.cpc.ncep.noaa.gov/products/predictions/threats/extremesTool.php>; <https://www.fema.gov/emergency-managers/practitioners/resilience-analysis-and-planning-tool>; <https://epa.maps.arcgis.com/home/webmap/viewer.html?webmap=137d4e512249480c980e00807562da10>.

⁷ https://www.epa.gov/sites/default/files/2016-08/documents/nepa_promising_practices_document_2016.pdf.

⁸ For more information about potential EJ concerns, refer to the July 21, 2021, Memorandum for the Heads of Departments and Agencies Interim Implementation Guidance for the Justice40 Initiative.

<https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-28.pdf>.

⁹ <https://www.epa.gov/healthresearch/health-impact-assessment-hia-resource-and-tool-compilation>.

¹⁰ <https://www.lep.gov/maps/lma2015/Final>.

¹¹ <https://www.airnow.gov/>.

¹² <https://www.atsdr.cdc.gov/placeandhealth/svi/index.html>.

¹³ <https://nihhis.cpo.noaa.gov/vulnerability-mapping>.

¹⁴ <https://www.cpc.ncep.noaa.gov/products/predictions/threats/extremesTool.php>.

¹⁵ <https://www.fema.gov/emergency-managers/practitioners/resilience-analysis-and-planning-tool>.

¹⁶ <https://epa.maps.arcgis.com/home/webmap/viewer.html?webmap=137d4e512249480c980e00807562da10>.

- Ground truthing through meaningful engagement with residents, community leaders, and organizations.

Tribal Consultation

EPA encourages the NRCS to consult with the Tribes and incorporate feedback from the Tribes when making decision regarding the project. EPA recommends the NEPA analysis describe the issues raised during the consultation and how those issues were addressed.

Monitoring and Adaptive Management

EPA recommends the NEPA analysis describe all project related monitoring and adaptive management strategies in detail. EPA recommends providing a level of detail that is commensurate with the complexity of the project and the potential risks to affected environment. EPA recommends to clearly define the goals and objectives of monitoring and present an overall strategy in sufficient detail for reviewers to evaluate whether the goals and objective of the monitoring will be achieved. This can generally be satisfied by providing summary information on monitoring (including a list of measurement parameters, methods, locations, frequency, data analysis, and reporting). In addition, we recommend that alternatives include clear requirements for regular analysis and reporting of data, as well as a requirement that the operator submit a full sampling and quality assurance plan for approval. It is recommended that the monitoring plans discuss who will conduct monitoring, the frequency, and how monitoring will direct management decisions.

EPA also recommends that the NEPA analysis describe adaptive management and how monitoring results would inform a need to shift the management strategy. Adaptive management can be described as a systematic approach for improving resource management by learning from management outcomes. CEQ emphasizes adaptive management in the report “*Modernizing NEPA Implementation*”¹⁷, and states that adding “monitor and adapt” to the traditional environmental management model can account for unanticipated changes, inaccurate predictions, or emerging information.

Monitoring and adaptive management for this project may include, but is not limited to, information on how flows will be monitored after construction of the project, what systems for leak detection will be in place, and what anticipated repairs and maintenance activities may be required in the future. EPA also recommends the NEPA analysis describe how invasive species monitoring will occur during and after the project and what adaptive management practices will be implemented to control the spread of invasive species.

¹⁷ <https://ceq.doe.gov/docs/ceq-publications/report/finalreport.pdf>.